

1. Which combination of processes from the water cycle is *most likely* to cause flooding?

- A. low runoff, low evaporation, high transpiration
- B. high runoff, low evaporation, low precipitation
- C. low runoff, high infiltration, high condensation
- D. high runoff, low infiltration, high precipitation

2. Where is *most* of Earth's water located?

- A. glaciers
- B. lakes
- C. oceans
- D. rivers

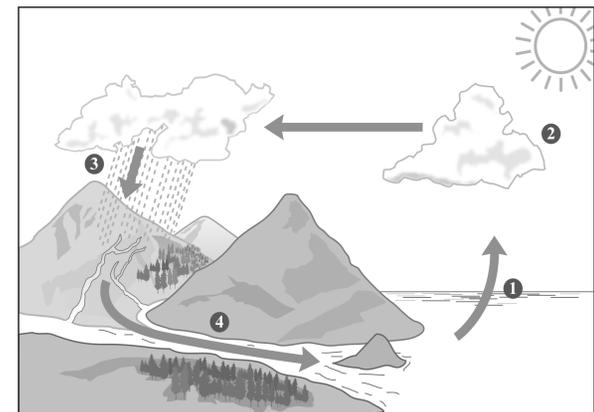
3.

### Water



Water exists on Earth as a solid, liquid and gas that nature recycles through a process known as the water cycle. We have as much water on the Earth today as we have had in the past. Explain why people are concerned about fresh water resources.

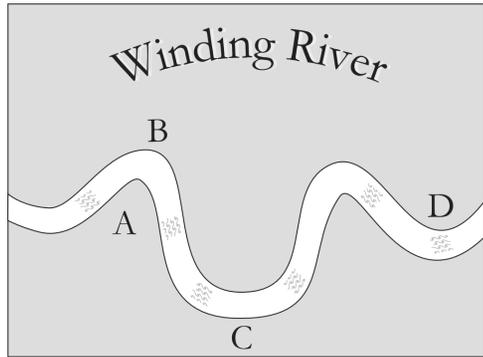
4. The diagram below shows four stages of the water cycle.



Which change is occurring at stage 1 in the diagram?

- A. Water is changing from a gas to a solid.
- B. Water is changing from a liquid to a gas.
- C. Water is changing from a liquid to a solid.
- D. Water is changing from a solid to a liquid.

5. Use the diagram below to answer the following question.



Assuming that the Winding River flows through flat land and is the same depth at each point, where would the river current be the fastest?

- A. point A      B. point B      C. point C      D. point D

6. Runoff from farms that use fertilizers is entering a small lake. This will *most directly* affect the lake by causing

- A. the lake to dry up.  
B. algae to grow in the lake.  
C. the lake to become deeper.  
D. water in the lake to become solid.

7. Three-fourths of Earth's surface is covered by water. Which of these describes nearly 97% of the water on Earth's surface?

- A. Ice                      B. Salt water  
C. Fresh water            D. Ground water

8. Marissa can float more easily in ocean water than in water in a swimming pool. Why is it easier for her to float in ocean water?

- A. Ocean water is more dense.  
B. Ocean water is deeper.  
C. There is a larger volume of ocean water to float in.  
D. She has a smaller mass in ocean water.

9. Where can brackish water *most likely* be found?

- A. Where lakes and rivers meet
- B. Where rivers and oceans meet
- C. Where ponds and creeks meet
- D. Where streams and lakes meet

10. Deep-diving submarines have helped scientists learn that photosynthesis does not take place in the deeper parts of the ocean. Which of the following explains why photosynthesis does not occur very deep in the ocean?

- A. There is no oxygen.
- B. There is no glucose.
- C. There is no sunlight.
- D. There is no nitrogen.

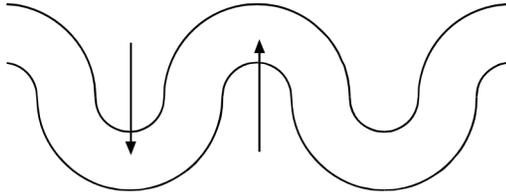
11. Brackish water is commonly found in estuaries. How does brackish water differ from ocean water and fresh water?

- A. Brackish water contains less salts than fresh water and ocean water.
- B. Brackish water contains more salts than fresh water and ocean water.
- C. Brackish water contains more salts than fresh water, but less salts than ocean water.
- D. Brackish water contains less salts than fresh water, but more salts than ocean water.

12. How is a delta *most likely* formed?

- A. irrigation
- B. glacier movement
- C. precipitation and condensation
- D. deposition of sediment

13. This diagram shows the path of a river.



The arrows are pointing to which features of the river?

- A. deltas
- B. floodplains
- C. meanders
- D. tributaries

14. What is the *best* way to map the ocean floor?

- A. using telescopes
- B. taking water samples
- C. using sonar

15. Which technology *best* monitors temperature changes in Earth's oceans?

- A. radar
- B. satellites
- C. sonar
- D. microwave

16. Which *best* determines the health of a lake used as a source of freshwater?

- A. its depth and width
- B. its temperature and pH
- C. its location and depth
- D. its temperature and depth

17. Why is water from an aquifer more likely to be cleaner than water from other sources?

- A. because it forms where fresh and salt water meet
- B. because it receives water directly from precipitation
- C. because it rises to the surface near the ocean
- D. because pollutants are filtered by rock and soil deep within Earth

18. In which oceanic zone do clams and crabs survive by burrowing in the sand?

- A. oceanic
- B. intertidal
- C. deep ocean
- D. open ocean

19. If a body of water has high turbidity levels, what can *most likely* be concluded?

- A. It has a low pH.
- B. It is unsafe to drink.
- C. It is too hot to drink.
- D. It contains a lot of chemicals.

20. Which *best* describes the characteristics of a river basin?

- A. the land drained by a river and its tributaries
- B. the land formed when rivers create estuaries and marshes
- C. the land at the mouth of a river where water flows into the ocean
- D. the land formed as a result of a river flooding

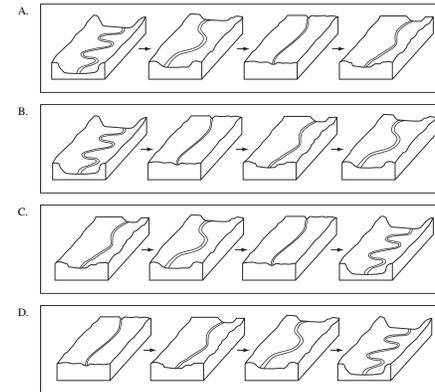
21. Which factors can have the *greatest* effect on the health of a river system?

- A. type of soil and salinity
- B. nitrate levels and turbidity
- C. human consumption and pH
- D. natural disasters and tidal changes

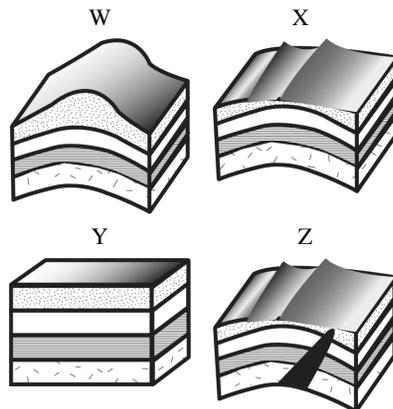
22. Over many years, a river changes how it flows. A young river flows rapidly down a shallow bed because it has not developed a floodplain. An old river has a large floodplain and flows slowly around many bends.



Which series shows a river from its youngest age to its oldest?



23. Use the diagrams below to answer the following question.



The diagrams above show a particular cross-section of Earth going through different geological changes. What is the correct sequence of the diagrams?

- A. W, X, Y, Z
- B. X, Y, Z, W
- C. Y, W, X, Z
- D. X, Z, Y, W

24. Some processes that shape Earth's surface are slow. Other processes are rapid.

Which statement describes a rapid change?

- A. Glaciers melt and form rivers.
- B. Wind weathers rocks into sand.
- C. Earthquakes move land and rocks.
- D. Rivers carry sediment and build deltas.

25. The Appalachian mountain range is made of folded rock layers.

The presence of this folded range is evidence of which process of mountain formation?

- A. separation of two fault blocks
- B. collision of two plates with each other
- C. eruption of volcanoes near each other
- D. deposition of sand and rocks from rivers

26. Use the information and figures below to answer the following question(s).

**Rock Layers**

The two figures below show rock layers that have been affected by Earth processes. The thin arrows on the block in Figure 1 show direction of movement. The thicker arrows on both Figures 1 and 2 show the direction of forces that acted on the original flat layers.

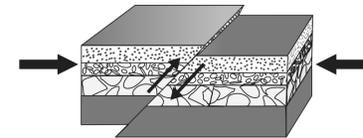


Figure 1

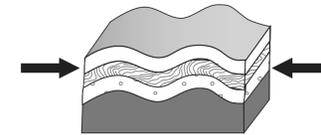
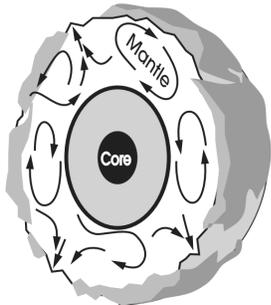


Figure 2

Which process produced the pattern of layers shown in Figure 1?

- A. folding
- B. faulting
- C. spreading
- D. weathering

27. **Earth's Cross Section**



Scientists believe that forces in Earth's mantle move Earth's crustal plates. What do the arrows in the diagram represent?

- A. ocean currents
- B. gravity
- C. convection currents
- D. wind patterns

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- |         |   |         |   |
|---------|---|---------|---|
| 1.      |   | 21.     |   |
| Answer: | D | Answer: | B |
| 2.      |   | 22.     |   |
| Answer: | C | Answer: | D |
| 3.      |   | 23.     |   |
| Answer: |   | Answer: | C |
| 4.      |   | 24.     |   |
| Answer: | B | Answer: | C |
| 5.      |   | 25.     |   |
| Answer: | B | Answer: | B |
| 6.      |   | 26.     |   |
| Answer: | B | Answer: | B |
| 7.      |   | 27.     |   |
| Answer: | B | Answer: | C |
| 8.      |   |         |   |
| Answer: | A |         |   |
| 9.      |   |         |   |
| Answer: | B |         |   |
| 10.     |   |         |   |
| Answer: | C |         |   |
| 11.     |   |         |   |
| Answer: | C |         |   |
| 12.     |   |         |   |
| Answer: | D |         |   |
| 13.     |   |         |   |
| Answer: | C |         |   |
| 14.     |   |         |   |
| Answer: | C |         |   |
| 15.     |   |         |   |
| Answer: | B |         |   |
| 16.     |   |         |   |
| Answer: | B |         |   |
| 17.     |   |         |   |
| Answer: | D |         |   |
| 18.     |   |         |   |
| Answer: | B |         |   |
| 19.     |   |         |   |
| Answer: | B |         |   |
| 20.     |   |         |   |
| Answer: | A |         |   |